

FILE 'CAPLUS, WPIDS, MEDLINE' ENTERED AT 15:24:59 ON 29 APR 2004  
E HOFMANN ROBERT/IN,AU

L7 10 S E3-E6  
E CARPENTER ROBERT/IN,AU  
L8 12 S E15-E16  
L9 62 S E29-31  
L10 84 S L7 OR L8 OR L9  
L11 5 S L10 AND (OXIDAT? OR OZON? OR ARTERIOSCLEROSIS OR HEART OR CAR  
L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

=> d que

L7 10 SEA ("HOFMANN ROBERT"/IN OR "HOFMANN ROBERT"/AU OR "HOFMANN  
ROBERT F"/IN OR "HOFMANN ROBERT F"/AU)  
L8 12 SEA ("CARPENTER ROBERT"/IN OR "CARPENTER ROBERT"/AU)  
L9 62 SEA ("CARPENTER ROBERT H"/IN OR "CARPENTER ROBERT H"/AU OR  
"CARPENTER ROBERT HERON"/AU)  
L10 84 SEA L7 OR L8 OR L9  
L11 5 SEA L10 AND (OXIDAT? OR OZON? OR ARTERIOSCLEROSIS OR HEART OR  
CARDIO? OR MENTHOL OR TERPINEOL OR CITRONELLOL OR NEROL OR  
LINALOOL OR PHYTOL OR GERANIOL OR PERIL? OR GERANYL? OR  
FARNESOL)  
L12 5 DUP REM L11 (0 DUPLICATES REMOVED)

=> d 1-5 bib ab kwic

L12 ANSWER 1 OF 5 MEDLINE on STN  
AN 2003136636 MEDLINE  
DN PubMed ID: 12652504  
TI Carotid sinus reactions during carotid artery stenting: predictors, incidence, and influence on clinical outcome.  
AU Leisch Franz; Kerschner Klaus; **Hofmann Robert**; Steinwender Clemens; Grund Michael; Bibl Dietmar; Leisch Franz A Jr; Bergmann Hans  
CS Cardiovascular Division, General Hospital, Linz, Austria..  
franz.leisch@akh.linz.at  
SO Catheterization and cardiovascular interventions : official journal of the Society for Cardiac Angiography & Interventions, (2003 Apr) 58 (4) 516-23.  
Journal code: 100884139. ISSN: 1522-1946.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200307  
ED Entered STN: 20030325  
Last Updated on STN: 20030724  
Entered Medline: 20030723  
AB Carotid sinus reactions (CSR), defined as asystole  $\geq$  3 sec and hypotension (systolic blood pressure  $\leq$  90 mm Hg), are frequent events during carotid artery stenting (CAS). Factors predisposing a patient to CSR as well as the impact of CSR on periprocedural complications have not yet been investigated in a prospective manner. The relationship between various clinical, morphologic, and procedural variables and the occurrence of CSR was examined among 105 consecutive patients undergoing successful CAS. After predilatation with a compliant balloon, tubular-slotted stents were used in all patients. No CSR occurred in 63 (60%) patients, whereas CSR developed in 42 (40%) patients. The most common type of CSR was asystole in combination with short-term hypotension without clinical symptoms. The most important predictor of CSR was bifurcation location of carotid stenosis (bifurcation > ostial > isolated internal carotid artery;  $P < 0.001$ ). The other independent predictors were presence of contralateral stenosis ( $P < 0.02$ ), length of stenosis ( $P < 0.03$ ), and balloon-to-artery ratio ( $P < 0.02$ ). Occurrence of CSR was unrelated to periprocedural cerebral or **cardiovascular** complications (7.1% vs. 9.5%; NS). We conclude that CSR occurs frequently (40%) during CAS. Bifurcation location of stenosis is the most important predictor of CSR. CSR does not increase the risk of periprocedural complications.  
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AU Leisch Franz; Kerschner Klaus; **Hofmann Robert**; Steinwender Clemens; Grund Michael; Bibl Dietmar; Leisch Franz A Jr; Bergmann Hans  
AB . . . of stenosis ( $P < 0.03$ ), and balloon-to-artery ratio ( $P < 0.02$ ). Occurrence of CSR was unrelated to periprocedural cerebral or **cardiovascular** complications (7.1% vs. 9.5%; NS). We conclude that CSR occurs frequently (40%) during CAS. Bifurcation location of stenosis is the. . .  
CT . . .  
Balloon: AE, adverse effects  
    Angioplasty, Balloon: MT, methods  
    \*Carotid Sinus: PP, physiopathology  
        Carotid Stenosis: DI, diagnosis  
    \*Carotid Stenosis: TH, therapy  
        \*Heart Arrest: EP, epidemiology  
            Heart Arrest: ET, etiology  
    \*Hypotension: EP, epidemiology  
        Hypotension: ET, etiology  
        Incidence

\*Intracranial Embolism: EP, epidemiology  
Intracranial Embolism: ET, etiology  
Logistic. . .

L12 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:777646 CAPLUS

DN 137:284357

TI Targeted **oxidative** therapeutic formulation for  
**arteriosclerosis** treatment

IN Carpenter, Robert H.

PA Hofmann, Robert F., USA

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002078623	A2	20021010	WO 2002-US9089	20020322
	WO 2002078623	A3	20040304	
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2002177585	A1	20021128	US 2001-822773	20010330

PRAI US 2001-822773 A 20010330

AB The use of a pharmaceutical formulation in treating coronary **arteriosclerosis** and a 2-component pharmaceutical formulation are disclosed. The pharmaceutical formulation contains peroxidic species or reaction products resulting from oxidn. of an alkene, such as **geraniol**, by an oxygen-contg. oxidizing agent, such as **ozone**; a penetrating solvent, such as DMSO, a dye contg. a chelated metal, such as hematoporphyrin; and an arom. redox compd., such as benzoquinone. A pharmaceutical formulation was prep'd. by sparging an **ozone/pure oxygen** gas mixt. of 120 mg/L up through **geraniol** at 1 L gas/h, maintaining the temp. at 5.degree., stopping the reaction when more than about 50% of the available unsatd. bonds have been reacted, and dilg. the product mixt. DMSO (1:10) to give a soln. or dispersion. Prior to use in the target biol. system, a mixt. of hematoporphyrin, Rose Bengal, and methylnaphthoquinone dry powders was added to the soln. or dispersion in sufficient quantity to create a concn. of 20 .mu.M of each component dispersed therein when delivered to the target biol. system by saline i.v. infusion.

TI Targeted **oxidative** therapeutic formulation for **arteriosclerosis** treatment

IN Carpenter, Robert H.

AB The use of a pharmaceutical formulation in treating coronary **arteriosclerosis** and a 2-component pharmaceutical formulation are disclosed. The pharmaceutical formulation contains peroxidic species or reaction products resulting from oxidn. of an alkene, such as **geraniol**, by an oxygen-contg. oxidizing agent, such as **ozone**; a penetrating solvent, such as DMSO, a dye contg. a chelated metal, such as hematoporphyrin; and an arom. redox compd., such as benzoquinone. A pharmaceutical formulation was prep'd. by sparging an **ozone/pure oxygen** gas mixt. of 120 mg/L up through **geraniol** at 1 L gas/h, maintaining the temp. at 5.degree., stopping the reaction when more than about 50% of the available unsatd.

bonds have been reacted, and dilg. the product mixt. DMSO (1:10) to give a soln. or dispersion. Prior to use in the target biol. system, a mixt. of hematoporphyrin, Rose Bengal, and methylnaphthoquinone dry powders was added to the soln. or dispersion in sufficient quantity to create a concn. of 20 .mu.M of each component dispersed therein when delivered to the target biol. system by saline i.v. infusion.

ST **oxidative therapeutic arteriosclerosis**; alkene peroxide **oxidative therapeutic arteriosclerosis**

IT Dyes  
(chelates with metals; targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Drug delivery systems  
(emollients; targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Electric field  
(pulsed; targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Oxides (inorganic), biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(sesquioxides, reaction with germanium; targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Electric current

Electron donors

Electroporation

Gravity

Human

Ionizing radiation

Laser radiation

Magnetic field

Phonon

Photon

Plasma

Protozoacides

Redox agents  
(targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Reactive oxygen species  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Alkenes, biological studies

Isoprenoids

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Chlorophyllins

Corrinoids

Fats and Glyceridic oils, biological studies

Glycerophospholipids

Lecithins

Peroxides, biological studies

Porphyrins

Sterols  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(targeted **oxidative therapeutic** formulation for **arteriosclerosis** treatment)

IT Alcohols, biological studies

Esters, biological studies

Ethers, biological studies

Fatty acids, biological studies

Hydrocarbons, biological studies

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
     (unsatd.; targeted **oxidative** therapeutic formulation for  
     **arteriosclerosis** treatment)

IT 106-24-1, **Geraniol**  
 RL: FMU (Formation, unclassified); RCT (Reactant); THU (Therapeutic use);  
 BIOL (Biological study); FORM (Formation, nonpreparative); RACT (Reactant  
 or reagent); USES (Uses)  
     (**ozonation**; targeted **oxidative** therapeutic  
     formulation for **arteriosclerosis** treatment)

IT 3352-57-6, Hydroxy, reactions 10028-15-6, **Ozone**, reactions  
 11062-77-4, Superoxide 13444-71-8, Periodic acid (HIO4) 14915-07-2,  
 Peroxide  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (targeted **oxidative** therapeutic formulation for  
     **arteriosclerosis** treatment)

IT 78-70-6, **Linalool** 89-78-1, **Menthol** 106-22-9,  
**Citronellol** 106-25-2, **Nerol** 123-35-3, Myrcene  
 138-86-3, Limonene 150-86-7, **Phytol** 372-75-8, Citrulline  
 1330-16-1, Pinene 4602-84-0, **Farnesol** 5392-40-5, Citral  
 7299-42-5, .DELTA.-**Terpineol** 24034-73-9  
 RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT  
 (Reactant or reagent); USES (Uses)  
     (targeted **oxidative** therapeutic formulation for  
     **arteriosclerosis** treatment)

IT 50-81-7, Ascorbic acid, biological studies 56-49-5, Methylcholanthrene  
 57-55-6, Propylene glycol, biological studies 58-27-5 61-73-4,  
 Methylene blue 64-17-5, Ethanol, biological studies 67-68-5, DMSO,  
 biological studies 67-71-0, Methylsulfonylmethane 83-88-5,  
 Lactoflavin, biological studies 106-51-4, 2,5-Cyclohexadiene-1,4-dione,  
 biological studies 130-15-4, 1,4-Naphthalenedione 517-28-2,  
 Hematoxylin 536-59-4, **Perillyl** alcohol 548-04-9, Hypericin  
 553-24-2, Neutral red 2321-07-5, Fluorescein 7439-89-6, Iron,  
 biological studies 7439-95-4, Magnesium, biological studies 7439-96-5,  
 Manganese, biological studies 7440-24-6, Strontium, biological studies  
 7440-31-5, Tin, biological studies 7440-50-8, Copper, biological studies  
 7440-50-8D, Copper, reaction with sodium chlorophyllins 7440-56-4D,  
 Germanium, oxides 9003-39-8, PVP 11121-48-5, Rose bengal 14459-29-1,  
 Hematoporphyrin 16009-13-5, Hemin 16423-68-0, Erythrosin 17372-87-1,  
 Eosin 189752-49-6, Texaphyrin  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
     (targeted **oxidative** therapeutic formulation for  
     **arteriosclerosis** treatment)

IT 7782-44-7, Oxygen, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (triplet and singlet; targeted **oxidative** therapeutic  
     formulation for **arteriosclerosis** treatment)

L12 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:777645 CAPLUS

DN 137:284356

TI Targeted **oxidative** therapeutic formulation

IN Hofmann, Robert F.

PA USA

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
PI WO 2002078622	A2	20021010	WO 2002-US9088	20020322

WO 2002078622 A3 20030313

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003032677 A1 20030213 US 2001-823252 20010330

EP 1385525 A2 20040204 EP 2002-757804 20020322

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI US 2001-823252 A 20010330

WO 2002-US9088 W 20020322

AB A pharmaceutical formulation contains peroxide species or reaction products resulting from oxidn. of an alkene, such as **geraniol**, by an oxygen-contg. oxidizing agent such as **ozone**; a penetrating solvent, such as DMSO, a dye contg. a chelated metal, such as hematoporphyrin; and a arom. redox compd., such as benzoquinone. The pharmaceutical formulation is used to treat horses infected with Sarcocystis protozoal infections. A pharmaceutical formulation was prep'd. by sparging an **ozone**/pure oxygen gas mixt. of 120 mg/L up through **geraniol** at 1 L gas/h, maintaining the temp. at 5.degree., stopping the reaction when more than about 50% of the available unsatd. bonds have been reacted, and dilg. the product mixt. DMSO (1:10) to give a soln. or dispersion. Prior to use in the target biol. system, a mixt. of hematoporphyrin, Rose Bengal, and methylnaphthoquinone dry powders was added to the soln. or dispersion in sufficient quantity to create a concn. of 20 .mu.M of each component dispersed therein when delivered to the target biol. system by saline i.v. infusion.

TI Targeted **oxidative** therapeutic formulation

IN Hofmann, Robert F.

AB A pharmaceutical formulation contains peroxide species or reaction products resulting from oxidn. of an alkene, such as **geraniol**, by an oxygen-contg. oxidizing agent such as **ozone**; a penetrating solvent, such as DMSO, a dye contg. a chelated metal, such as hematoporphyrin; and a arom. redox compd., such as benzoquinone. The pharmaceutical formulation is used to treat horses infected with Sarcocystis protozoal infections. A pharmaceutical formulation was prep'd. by sparging an **ozone**/pure oxygen gas mixt. of 120 mg/L up through **geraniol** at 1 L gas/h, maintaining the temp. at 5.degree., stopping the reaction when more than about 50% of the available unsatd. bonds have been reacted, and dilg. the product mixt. DMSO (1:10) to give a soln. or dispersion. Prior to use in the target biol. system, a mixt. of hematoporphyrin, Rose Bengal, and methylnaphthoquinone dry powders was added to the soln. or dispersion in sufficient quantity to create a concn. of 20 .mu.M of each component dispersed therein when delivered to the target biol. system by saline i.v. infusion.

ST targeted **oxidative** therapeutic formulation; alkene peroxide  
targeted formulation

IT Dyes

(chelates with metals; targeted **oxidative** therapeutic  
formulation)

IT Drug delivery systems

(emollients; targeted **oxidative** therapeutic formulation)

IT Electric field

(pulsed; targeted **oxidative** therapeutic formulation)

IT Oxides (inorganic), biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(sesqui-, reacted with germanium; targeted **oxidative**

therapeutic formulation)

IT Electric current

Electron donors

Electroporation

Gravity

Horse (*Equus caballus*)

Ionizing radiation

Laser radiation

Magnetic field

Phonon

Photon

Plasma

Protozoacides

Redox agents

(targeted **oxidative** therapeutic formulation)

IT Reactive oxygen species

RL: RCT (Reactant); RACT (Reactant or reagent)

(targeted **oxidative** therapeutic formulation)

IT Alkenes, biological studies

Isoprenoids

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(targeted **oxidative** therapeutic formulation)

IT Chlorophyllins

Corrinoids

Fats and Glyceridic oils, biological studies

Glycerophospholipids

Lecithins

Peroxides, biological studies

Porphyrins

Sterols

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(targeted **oxidative** therapeutic formulation)

IT Alcohols, biological studies

Esters, biological studies

Ethers, biological studies

Fatty acids, biological studies

Hydrocarbons, biological studies

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(unsatd.; targeted **oxidative** therapeutic formulation)

IT 106-24-1, **Geraniol**

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(ozonated; targeted **oxidative** therapeutic formulation)

IT 3352-57-6, Hydroxy, reactions 10028-15-6, **Ozone**, reactions  
11062-77-4, Superoxide 13444-71-8, Periodic acid (HIO<sub>4</sub>) 14915-07-2,  
Peroxide

RL: RCT (Reactant); RACT (Reactant or reagent)

(targeted **oxidative** therapeutic formulation)

IT 78-70-6, **Linalool** 89-78-1, **Menthol** 106-22-9,  
**Citronellol** 106-25-2, **Nerol** 123-35-3, Myrcene  
138-86-3, Limonene 150-86-7, **Phytol** 372-75-8, Citrulline  
1330-16-1, Pinene 4602-84-0, **Farnesol** 5392-40-5, Citral  
7299-42-5, .DELTA.-**Terpineol** 24034-73-9

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(targeted **oxidative** therapeutic formulation)

IT 50-81-7, Ascorbic acid, biological studies 56-49-5, Methylcholanthrene  
57-55-6, Propylene glycol, biological studies 61-73-4, Methylene blue  
64-17-5, Ethanol, biological studies 67-68-5, DMSO, biological studies

67-71-0, Methylsulfonylmethane 83-88-5, Lactoflavin, biological studies  
106-51-4, 2,5-Cyclohexadiene-1,4-dione, biological studies 130-15-4,  
1,4-Naphthalenedione 517-28-2, Hematoxylin 536-59-4, **Perillyl**  
alcohol 548-04-9, Hypericin 553-24-2, Neutral red 2321-07-5,  
Fluorescein 7439-89-6, Iron, biological studies 7439-95-4, Magnesium,  
biological studies 7439-96-5, Manganese, biological studies 7440-24-6,  
Strontium, biological studies 7440-31-5, Tin, biological studies  
7440-50-8, Copper, biological studies 7440-50-8D, Copper, reaction with  
sodium chlorophyllin 7440-56-4D, Germanium, reaction with oxides  
9003-39-8, Polyvinylpyrrolidone 11121-48-5, Rose bengal 14459-29-1,  
Hematoporphyrin 16009-13-5, Hemin 16423-68-0, Erythrosin 17372-87-1,  
Eosin 29595-63-9 189752-49-6, Texaphyrin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(targeted **oxidative** therapeutic formulation)

IT 7782-44-7, Oxygen, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(triplet and singlet; targeted **oxidative** therapeutic  
formulation)

L12 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:492934 CAPLUS

DN 137:163984

TI The tissue distribution of the mRNA of ghrelin and subtypes of its receptor GHS-R, in humans

AU Gnanapavan, Sharmilee; Kola, Blerina; Bustin, Stephen A.; Morris, Damian G.; McGee, Patrick; Fairclough, Peter; Bhattacharya, Satya;  
**Carpenter, Robert**; Grossman, Ashley B.; Korbonits, Marta

CS Department of Endocrinology, St. Bartholomew's and the Royal London Hospital, London, EC1A 7BE, UK

SO Journal of Clinical Endocrinology and Metabolism (2002), 87(6), 2988-2991  
CODEN: JCEMAZ; ISSN: 0021-972X

PB Endocrine Society

DT Journal

LA English

AB Ghrelin is a novel growth hormone-releasing peptide, originally identified in the rat stomach as the endogenous ligand for the growth hormone secretagogue-receptor (GHS-R1a). Ghrelin is involved in the regulation of GH release, but it has recently been suggested that ghrelin may have other actions, including effects on appetite, carbohydrate metab., **heart**, kidney, pancreas, gonads, and cell proliferation. The distribution of ghrelin, its functional receptor (type 1a) and the unspliced, nonfunctional GHS-R type 1b mRNA expression was investigated in various human tissues using classical and real-time reverse transcription and polymerase chain reaction. GHS-R1a was predominantly expressed in the pituitary and at much lower levels in the thyroid gland, pancreas, spleen, myocardium and adrenal gland. In contrast, ghrelin was found in the stomach, other parts of the gut and, indeed, in all the tissues studied (adrenal gland, atrium, breast, buccal mucosa, esophagus, Fallopian tube, fat tissue, gall bladder, human lymphocytes, ileum, kidney, left colon, liver, lung, lymph node, muscle, myocardium, ovary, pancreas, pituitary, placenta, prostate, right colon, skin, spleen, testis, thyroid, and vein). GHS-R1b expression was also widespread in all tissues studied. The significance of the widespread tissue distribution of ghrelin remains to be detd. These data suggest that ghrelin might have widespread physiol. effects via different, partly unidentified, subtypes of the GHS-R in endocrine and non-endocrine tissues.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AU Gnanapavan, Sharmilee; Kola, Blerina; Bustin, Stephen A.; Morris, Damian G.; McGee, Patrick; Fairclough, Peter; Bhattacharya, Satya;  
**Carpenter, Robert**; Grossman, Ashley B.; Korbonits, Marta

AB Ghrelin is a novel growth hormone-releasing peptide, originally identified

in the rat stomach as the endogenous ligand for the growth hormone secretagogue-receptor (GHS-R1a). Ghrelin is involved in the regulation of GH release, but it has recently been suggested that ghrelin may have other actions, including effects on appetite, carbohydrate metab., **heart**, kidney, pancreas, gonads, and cell proliferation. The distribution of ghrelin, its functional receptor (type 1a) and the unspliced, nonfunctional GHS-R type 1b mRNA expression was investigated in various human tissues using classical and real-time reverse transcription and polymerase chain reaction. GHS-R1a was predominantly expressed in the pituitary and at much lower levels in the thyroid gland, pancreas, spleen, myocardium and adrenal gland. In contrast, ghrelin was found in the stomach, other parts of the gut and, indeed, in all the tissues studied (adrenal gland, atrium, breast, buccal mucosa, esophagus, Fallopian tube, fat tissue, gall bladder, human lymphocytes, ileum, kidney, left colon, liver, lung, lymph node, muscle, myocardium, ovary, pancreas, pituitary, placenta, prostate, right colon, skin, spleen, testis, thyroid, and vein). GHS-R1b expression was also widespread in all tissues studied. The significance of the widespread tissue distribution of ghrelin remains to be detd. These data suggest that ghrelin might have widespread physiol. effects via different, partly unidentified, subtypes of the GHS-R in endocrine and non-endocrine tissues.

IT Adipose tissue

Adrenal gland

Bladder

Esophagus

Gallbladder

**Heart**

Human

Kidney

Liver

Lung

Lymph node

Lymphocyte

Mammary gland

Muscle

Ovary

Oviduct

Pancreas

Pituitary gland

Placenta

Prostate gland

Skin

Spleen

Stomach

Testis

Thyroid gland

Vein

(ghrelin and its receptor GHS-R subtypes mRNAs distribution in human tissues)

L12 ANSWER 5 OF 5 MEDLINE on STN

AN 2002308154 MEDLINE

DN PubMed ID: 12050285

TI The tissue distribution of the mRNA of ghrelin and subtypes of its receptor, GHS-R, in humans.

AU Gnanapavan Sharmilee; Kola Blerina; Bustin Stephen A; Morris Damian G; McGee Patrick; Fairclough Peter; Bhattacharya Satya; Carpenter Robert; Grossman Ashley B; Korbonits Marta

CS Department of Endocrinology, St. Bartholomew's and the Royal London Hospital, London EC1A 7BE, UK.

SO Journal of clinical endocrinology and metabolism, (2002 Jun) 87 (6) 2988.  
Journal code: 0375362. ISSN: 0021-972X.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 200207  
ED Entered STN: 20020611  
Last Updated on STN: 20020704  
Entered Medline: 20020703  
AB Ghrelin is a novel growth hormone-releasing peptide, originally identified in the rat stomach as the endogenous ligand for the growth hormone secretagogue-receptor (GHS-R1a). Ghrelin is involved in the regulation of GH release, but it has recently been suggested that ghrelin may have other actions, including effects on appetite, carbohydrate metabolism, heart, kidney, pancreas, gonads, and cell proliferation. The distribution of ghrelin, its functional receptor (type 1a) and the unspliced, non-functional GHS-R type 1b mRNA expression was investigated in various human tissues using classical and real-time reverse transcription and polymerase chain reaction. GHS-R1a was predominantly expressed in the pituitary and at much lower levels in the thyroid gland, pancreas, spleen, myocardium and adrenal gland. In contrast, ghrelin was found in the stomach, other parts of the gut and, indeed, in all the tissues studied (adrenal gland, atrium, breast, buccal mucosa, esophagus, Fallopian tube, fat tissue, gall bladder, human lymphocytes, ileum, kidney, left colon, liver, lung, lymph node, muscle, muscle, myocardium, ovary, pancreas, pituitary, placenta, prostate, right colon, skin, spleen, testis, thyroid, and vein). GHS-R1b expression was also widespread in all tissues studied. The significance of the widespread tissue distribution of ghrelin remains to be determined. These data suggest that ghrelin might have widespread physiological effects via different, partly unidentified, subtypes of the GHS-R in endocrine and non-endocrine tissues.  
AU Gnanapavan Sharmilee; Kola Blerina; Bustin Stephen A; Morris Damian G; McGee Patrick; Fairclough Peter; Bhattacharya Satya; **Carpenter Robert**; Grossman Ashley B; Korbonits Marta  
AB . . . GH release, but it has recently been suggested that ghrelin may have other actions, including effects on appetite, carbohydrate metabolism, heart, kidney, pancreas, gonads, and cell proliferation. The distribution of ghrelin, its functional receptor (type 1a) and the unspliced, non-functional GHS-R. . .